

SUBMISSION and AMENDMENT UNDER 37 C.F.R. §§1.114 and 1.121

Atty. Dkt. No. 0618.017.0002

Serial No.: 10/091,430

Filing Date: March 7, 2002

AMENDMENTS TO THE CLAIMS

Please amend the previously pending claims according to the changes indicated in the following claim listing.

Claims 1-72 (Canceled)

73. (Currently Amended) An apparatus for conducting electrophoresis therein, the apparatus comprising:

a body of separating gel;

a cathode electrically coupled to a first end of said body of separating gel; and

an anode comprising an electrochemically ionizable metal, wherein said anode is disposed in a semi-solid ion reservoir containing a buffer, wherein said semi-solid ion buffer reservoir is disposed at a second end of said body of separating gel and is electrically coupled to said body of separating gel, wherein said ~~semi-solid ion reservoir and said buffer~~ comprises an amine and a Zwitter ion, and wherein said buffer inhibits ~~are configured for retarding~~ the migration of ions of said electrochemically ionizable metal into said body of separating gel, during said electrophoresis.

74. (Currently Amended) The apparatus according to claim 73 wherein said cathode, said anode, said body of separating gel and said semi-solid ion buffer reservoir are disposed within a substantially closed cassette.

75. (Previously presented) The apparatus according to claim 73 wherein said electrochemically ionizable metal of said anode [[is]] comprises copper.

76. (Previously presented) The apparatus according to claim 73 wherein said cathode comprises a metal selected from copper and aluminum.

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77. (Canceled).

78. (Currently amended) The apparatus according to claim ~~77~~ 73 wherein the pK of said amine is lower than that of said Zwitter ion by about between 0.9 and [-]2 pH units.

79. (Currently amended) The apparatus according to claim ~~77~~ 73 wherein said buffer is selected from,

a combination of bis[2-hydroxyethyl]iminotris[hydroxymethyl]methane and N-tris[hydroxymethyl]methylglycine,

a combination of bis[2-hydroxyethyl]iminotris[hydroxymethyl]methane and N,N-bis[2-hydroxyethyl]glycine,

a combination of bis[2-hydroxyethyl]iminotris[hydroxymethyl]methane and Glycylglycine,

a combination of Tris and Glycine, and

a combination of amino methyl propanol and proline.

80. (Previously presented) The apparatus according to claim 73 wherein said body of ~~separating gel is selected from a~~ comprises polyacrylamide based gel ~~and an or~~ agarose based gel.

81. (Currently amended) The apparatus according to claim 73, wherein the ~~migration of ions of said electrochemically ionizable metal during said electrophoresis does do not migrate into exceed the limits of said semi solid reservoir~~ said body of separating gel during electrophoresis.

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82. (Previously presented) The apparatus according to claim 73 wherein said body of separating gel comprises at least one sample well.

83-92 (canceled)

93. (new) The apparatus of claim 73, wherein said Zwitter ion comprises a carboxyl group.